

REMARKS/ARGUMENTS

The Office Action mailed November 16, 2006, has been received and reviewed. Claims 1 through 20 are currently pending in the application. Claims 1 through 3, and 12 through 15 stand rejected. Claims 4 through 11, and 16 through 20 are apparently withdrawn as being drawn to a non-elected invention, although the present Office Action is silent in this regard. Please note that claim 15 was previously “withdrawn” and is now shown as “rejected.” Applicants have amended claims 1, 2 and 15 through 20, and respectfully request reconsideration of the application as amended herein.

Independent claims 1 and 15 have been amended to place the method of the present invention in a more positively recited method format by affirmative recitation of method acts. Dependent claim 2 and withdrawn dependent claims 16 through 20 have been amended to enhance antecedent basis, to reflect the amendments to claims 1 and 15 and to eliminate redundant language in claims 16 through 20 reciting “at least a plurality” in favor of “a plurality” or “the plurality.”

No new matter has been added. Applicant notes the Examiner’s request to associate reference numerals with the recited claim elements, and respectfully declines to do so as unnecessary and unduly burdensome.

However, Applicant notes that clear support for independent claims 1 and 15, as well as dependent claims 2, 3, 14, 16, 17 and 20, as previously set forth and as presently amended resides in the as-filed specification at least at paragraph [0033] with reference to FIGS. 4 and 9A. Support for claims 4, 5 and 10 resides in the as-filed specification at least at paragraph [0035] with reference to FIG. 5. Support for claims 6, 7 and 8 resides in the as-filed specification at least at paragraph [0036] with reference to FIG. 5A. Support for claim 9 resides in the as-filed specification at least at paragraph [0038] with reference to FIG. 7. Support for claim 11 resides in the as-filed specification at least at paragraph [0037] with reference to FIG. 6. Support for claims 12, 13, 18 and 19 lies in the as-filed claims themselves, which were originally presented in the parent application hereto, Serial No. 10/409,804 and as filed in the present application. The specification hereof, at paragraph [0033], has been amended to insert this subject matter.

The amendments to withdrawn claims 16-20 are indicated using the status identifier

“Withdrawn-Currently amended.” While 37 C.F.R. 1.121 and M.P.E.P. § 714 list **“Original,” “Currently amended,” “Canceled,” “Withdrawn,” “Previously presented,” “New,”** and **“Not entered”** as the status identifiers to be used, subsection C(E) of M.P.E.P. § 714 lists **“Withdrawn-Currently amended”** as an acceptable alternative for **“Withdrawn.”** As such, Applicants’ use of the former status identifier to indicate amendments to the withdrawn claims complies with the current rules of the United States Patent and Trademark Office.

35 U.S.C. § 112 Claim Rejections

Claims 1 through 3, and 12 through 14 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicant has amended claim 1 to overcome the rejection, and wishes to express his appreciation to the Examiner for noting the inadvertent error.

35 U.S.C. § 102(e) Anticipation Rejections

Anticipation Rejection Based on U.S. Patent No. 6,975,035 to Lee

Claims 1, 14 and 15 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Lee (U.S. Patent No. 6,975,035). Applicants respectfully traverse this rejection, as hereinafter set forth.

A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Brothers v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

The 35 U.S.C. § 102(b) anticipation rejections of claims 1, 14 and 15 are improper because the Lee reference fails to describe each and every element, either explicitly or inherently, recited in claims 1, 14 and 15.

Making reference to FIGS. 1-3 of Lee with respect to independent claims 1 and 15, Applicant first notes that a first elongated interconnect slot 120, 130 cannot be the same as a second elongated interconnect slot 120, 130 as asserted by the Examiner. In other words, the

same recited elements cannot be two thing at once. Second, it is noted that opening 130 extends *completely across the length* of interposer substrate 110, and so cannot be a “slot” but is, rather, a groove or channel. Further, recesses 120 are not elongated, and they are *superimposed over* and *in communication with* opening 130, as is evident from FIGS. 1-3. Opening 130 is, therefore, not longitudinally separated from any recess 120. In addition, segments 132 merely separate adjacent (non-elongated) recesses 120 and have no effect on opening 130. Still further, only recesses 120 align with bond pads 158 having bumps thereon, and each recess 120 is aligned with and receives *one* bump 156 associated with a single bond pad. Thus, no recess 120 enables access to a plurality of bond pads. See Lee, Col. 11, line 58 through Col. 12 line 12 and FIGS. 6A and 6B. FIGS. 13 and 25 are no more material to Applicant’s claimed invention than FIGS. 1-3. FIG. 13 shows superimposed, nonelongated recesses and openings 620, 630, each recess 620 being sized and configured to receive a single bump 656 associated with a single bond pad (FIG. 16). FIG. 25 depicts an “I” shaped pattern of square recesses 320.

Accordingly, claims 1 and 15 are not anticipated.

Claim 14 is allowable as depending from claim 1, as the reference fails to describe the claimed method act of locating a crosspiece substantially at a longitudinal midpoint of a combined length of a first and at least a second elongated slot which (as recited in claim 1) are longitudinally separated by the crosspiece.

For the sake of convenience, it is also noted that the Lee reference and the present application were, at the time the present invention was made, assigned to a common Assignee, Micron Technology, Inc., a Delaware corporation, as evidenced by the Assignment of the parent of the present application (which encompasses divisional applications) to Micron Technology, Inc. recorded in the U.S. Patent and Trademark Office at Reel 013962, Frame 0467 and the Assignment of the Lee reference to Micron Technology, Inc. recorded in the U.S. Patent and Trademark Office at Reel 013239, Frame 0730. Therefore, the Lee reference is unavailable under 35 U.S.C. 103 as a reference.

35 U.S.C. § 103(a) Obviousness Rejections

Obviousness Rejection Based on U.S. Patent No. 6,975,035 to Lee, in View of U.S. Patent No. 5,597,643 to Weber

Claim 2 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Lee (U.S. Patent No. 6,975,035), in view of Weber (U.S. Patent No. 5,597,643). Applicants respectfully traverse this rejection, as hereinafter set forth.

M.P.E.P. 706.02(j) sets forth the standard for a Section 103(a) rejection:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine reference teachings. Second, there must be a reasonable expectation of success. Finally, **the prior art reference (or references when combined) must teach or suggest all the claim limitations.** The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). (Emphasis added).

As noted above, Lee and the present application are assigned to a common Assignee, Micron Technology, Inc. As Lee is available as a reference only under 35 U.S.C. 102(e), it is thus unavailable as a reference under 35 U.S.C. 103(c)(1).

Thus, the unavailability of Lee under 35 U.S.C. 103 to reject independent claim 1 precludes a rejection of claim 2 which depends therefrom because a dependent claim is obvious only if the independent claim from which it depends is obvious. *See In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988), *see also* MPEP § 2143.03. Therefore, the Applicant requests that the Examiner withdraw the 35 U.S.C. § 103(a) obviousness to dependent claim 2.

Obviousness Rejection Based on U.S. Patent No. 6,975,035 to Lee, and U.S. Patent No. 5,597,643 to Weber, and Further in View of U.S. Patent No. 3,635,124 to Parsons

Claim 3 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Lee (U.S. Patent No. 6,975,035), and Weber (U.S. Patent No. 5,597,643), and further in view of Parsons (U.S. Patent No. 3,635,124). Applicants respectfully traverse this rejection, as hereinafter set forth.

As noted above, Lee and the present application are assigned to a common Assignee, Micron Technology, Inc. As Lee is available as a reference only under 35 U.S.C. 102(e), it is thus unavailable as a reference under 35 U.S.C. 103(c)(1).

Thus, the unavailability of Lee under 35 U.S.C. 103 to reject independent claim 1 precludes a rejection of claim 3 which depends therefrom through claim 2, because a dependent claim is obvious only if the independent claim from which it depends is obvious. *See In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988), *see also* MPEP § 2143.03. Therefore, the Applicant requests that the Examiner withdraw the 35 U.S.C. § 103(a) obviousness to dependent claim 3.

Further, Applicant notes that Parsons is art which is nonanalogous to that of the present invention, directed to the use of milling machines to carve casting patterns. Therefore, there would be no motivation to combine Parsons with Lee and Weber.

Obviousness Rejection Based on U.S. Patent No. 6,975,035 to Lee

Claims 12 and 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Lee (U.S. Patent No. 6,975,035). Applicants respectfully traverse this rejection, as hereinafter set forth.

As noted above, Lee and the present application are assigned to a common Assignee, Micron Technology, Inc. As Lee is available as a reference only under 35 U.S.C. 102(e), it is thus unavailable as a reference under 35 U.S.C. 103(c)(1).

Thus, Lee cannot be employed to reject claims 12 and 13 as obvious.

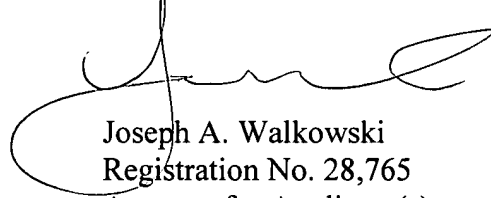
ENTRY OF AMENDMENTS

The amendments to claims 1, 2 and 15-20 above should be entered by the Examiner because the amendments are supported by the as-filed specification and drawings and do not add any new matter to the application.

CONCLUSION

Claims 1 through 20 (including withdrawn claims 4-11 and 16-20) are believed to be in condition for allowance, and an early notice thereof is respectfully solicited. Should the Examiner determine that additional issues remain which might be resolved by a telephone conference, he is respectfully invited to contact Applicants' undersigned attorney.

Respectfully submitted,



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